

Operator Examiner

News for Wastewater Treatment Professionals

Operator Certification Exams May 10, 2001

Indiana Facilities Dominate National Awards Program
...Story on Page 2



South Henry Regional
Waste District's WWTP

Pursuant to the Certification of Water and Wastewater Treatment Plant Operators Law, Acts of 1967, as amended IC 13-18-11 and Rule 327 IAC 5-22, notice is hereby given that the Wastewater Treatment Plant Operator Certification Examinations for all industrial and municipal classes are scheduled for Thursday, May 10, 2001. Exact time and location will be announced in the letter of acceptance that will be sent to eligible applicants.

How to Apply

Please mail completed applications to the address listed in this article. Each application must be accompanied by the \$30 application fee and postmarked no later than March 26, 2001. Make checks payable to: Cashier, IDEM. Applications postmarked after March 26, 2001 will **not** be considered for this exam.

About Study Guides

A study guide is available for each exam classification. Operators may request exam study packets from the certification office at any time or visit IDEM's Web page at www.state.in.us/idem/own/facmang/oats/

[index.html](#). Study guides will not automatically be mailed to applicants because most applications are received near the application deadline, only 45 days prior to the exam.

How to Get Test Results

The results (pass or fail only) of the May 10, 2001 exam will be available by phone on Friday, May 18. For your results, call toll free at (800) 451-6027, press 0 and ask for Christine Hightower at ext. 2-8666 or Dyian Jones at ext. 3-0419. Or, call (317) 232-8666 or (317) 233-0419.

For More Information

Christine Hightower
Certification Officer, WWTP Operators
IDEM - Office of Water Quality
P.O. Box 6015
Indianapolis, Indiana 46206-6015

Phone: (800) 451-6027, press 0
and ask for ext. 2-8666,
or call (317) 232-8666

Fax: (317) 232-8637 or
(317) 232-8406

E-mail: chightow@dem.state.in.us

Web: www.state.in.us/idem/own/facmang/oats/index.html 🖨

Spring 2001

Plan Ahead for 2002 Grant Funds

The Indiana Department of Environmental Management awards grants through its Sections 104(b)(3) and 205(j) grant programs for projects that provide effective solutions to point and nonpoint source water pollution. In January 2001, IDEM received 29 grant applications. They are currently being reviewed, and recipients of 2001 grant funds will be announced in May. Details on funding opportunities for 2002 will be announced in fall 2001. So, keep the following information in mind when you are planning future programs for your facility.

Section 104(b)(3) Funding

In 2002, Section 104(b)(3) funding will be available for projects that will

Continued on page 3...

Future Exam Dates

Next year, the Operator Assistance and Pretreatment Section will move the November exam date to the beginning of the month starting with the November 2002 exam. This should give both IDEM staff and the examinees some breathing space between the exam and the very busy holiday season.

Exam Date	Postmark Deadline
Nov. 15, 2001	Oct. 1, 2001
May 9, 2002	March 25, 2001

The above dates are subject to change.

Indiana Wastewater Facility Receives National Award



J. Charles Fox, U.S. EPA assistant administrator for water (left) presents South Henry Regional Waste District's award to Connie Stevens, district manager, and Jerry Libby, superintendent.

The South Henry Regional Waste District facility received a Second Place National Operation and

Maintenance Excellence Award from the U.S. Environmental Protection Agency at the Water Environment Federation's annual conference in Anaheim, California in October 2000.

The facility was the recipient of a U.S. EPA Region V first place award and was nominated for the national award by Region V.

District manager for the facility is Connie Stevens and the certified operator is Jerry Libby. Congratulations on your well-deserved achievement. For more information, call Barbara McDowell of IDEM at (800) 451-6027, press 0 and ask for ext. 3-6464, or call (317) 233-6464. ♣

Indiana Facilities Dominate U.S. EPA Region V Operation and Maintenance Awards for 2000

Indiana facilities fared really well in the U.S. Environmental Protection Agency, Region V, Operation and Maintenance Excellence Awards for 2000, earning two first and one second place awards. The award recipients and their category were:

1st Place-Small-Advanced Category
South Henry Regional Waste District

2nd Place-Medium-Advanced Category
City of Rochester Municipal Facility

1st Place-Large-Advanced Category
City of Elkhart Municipal Facility

U.S. EPA Region V Awards Coordinator David Stoltenberg gave award presentations at each facility during ceremonies last summer. Regional first place winners went on to compete in the National Awards Program. IDEM offers congratulations to the award recipients. We are very proud of your accomplishments.



Receiving the City of Elkhart Municipal Facility's award are Jimmie Bolinger, lead operator; Mike Machlan, network engineer; George Bowers, lead operator; Art Umble, mgr. of water and wastewater operations; Lynn Newvine, lab and pretreatment director; and Ed Anderson, maintenance supervisor.

The objectives of the Operation and Maintenance (O&M) Excellence Awards Program are:

- (1) To sensitize the public about the contributions that publicly owned wastewater treatment facilities make to clean water;
- (2) To encourage public support for effective O&M, sewer use, and user charge systems; and,
- (3) To recognize communities that continue to meet permit requirements from outstanding O&M practices.

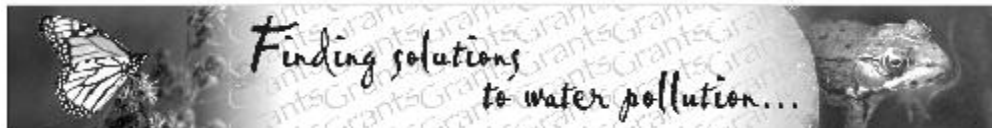
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IDEM on the Road to Pretreatment Program Delegation

On November 2, 2000, a new Industrial Wastewater Pretreatment Regulation 327 IAC 5-16 was published as a final rule in the *Indiana Register*. The former rules needed revisions to mirror federal requirements and allow Indiana to petition the U.S. Environmental Protection Agency for delegation of the pretreatment program. Pretreatment staff is currently working on a delegation packet for submittal to U.S. EPA. Some of the things that will come from program delegation are increased staffing levels and the delegation of more municipalities as pretreatment cities. It is anticipated that the number of pretreatment cities will expand from 45 to nearly 100 over the next 5 years. As municipalities go forth to attract new industries to their communities, they must be prepared to regulate those industries to insure protection of the publicly owned treatment works. IDEM pretreatment staff will function more as program advisors assisting cities in developing new programs and conducting audits on existing programs. For more information, contact Bill Blue at (800) 451-6027, press 0 and ask for ext. 2-8729, or call (317) 232-8729. ♣

Name Changes at IDEM

Effective January 1, 2001, the Indiana Department of Environmental Management's former Office of Water Management will be referred to as the Office of Water Quality (OWQ), and the former Office of Air Management will be referred to as the Office of Air Quality (OAQ). ♣



Continued from page 2...

Plan Ahead for 2002 Grant Funds

improve the effectiveness of the National Pollutant Discharge Elimination System permit program which regulates point source discharges of water pollution. A project proposed for assistance by this program should deal predominantly with water pollution sources and activities regulated by the NPDES program and produce a strong, beneficial value for the statewide NPDES permit program.

Eligibility Requirements for Section 104(b)(3) Funding

- Section 104(b)(3) funding is limited to governmental units, conservancy districts, and other public or non-profit private agencies, institutions and organizations.
- 104(b)(3) funds cannot be used to fund dredging, drainage or flood control, permit fees, or enforcement or compliance orders.
- An in-kind or cash match of 5% is required. Projects must be limited to 1-2 years in duration with tangible results.

Section 205(j) Funding

In 2002, Section 205(j) funding will be available for projects that will provide for water quality/pollution control management planning and design. Funds are to be used to determine the nature, extent and causes of point and nonpoint source pollution problems and to develop plans to resolve these problems.

Eligibility Requirements for Section 205(j) Funding

- Section 205(j) funding is limited to governmental units, conservancy districts, regional sewer districts and regional planning commissions. (Nonprofit organizations are not eligible).

- 205(j) funds cannot be used to fund dredging, drainage or flood control, permit fees, enforcement or compliance orders.
- No match is required. Projects must be limited to 1-2 years in duration with tangible results.

Competitive Projects:

- Have local leadership, strong public involvement and support, and education and outreach,
- Comprehensively address how to reduce the pollution source, and
- Seek to demonstrate management practices or processes that are new to the area.

The 2002 round of grants will be announced in fall 2001. Recipients of 2002 grant funds will be notified in May 2002.

For More Information

Qualified grant applicants are encouraged to discuss their proposed projects with and request an application from Bonny Elifritz, grant coordinator.

Contact:

Bonny Elifritz, grant coordinator
(800) 451-6027, press 0 and ask for ext. 4-0922, or call (317) 234-0922

Address:

IDEM - Office of Water Quality
Watershed Management Section
P.O. Box 6015
Indianapolis, IN 46206-6015

Website:

www.state.in.us/idem/owm
Click on "Watershed Management Info" under the "Planning & Restoration Branch" heading. ♣

Certification Rule Moved to 327 IAC 5-22

The wastewater certification rule (old 327 IAC 8-12) has been split from the drinking water rule and moved to 327 IAC 5-22. The content of the rule remains essentially the same. Look for future announcements regarding the revision of certification rule 327 IAC 5-22. For more information, call Christine Hightower at (800) 451-6027, press 0 and ask for ext. 2-8666, or call (317) 232-8666. ♣

Operator Certification Program Staff Changes

Dick Weisfeld

was named continuing education coordinator. He will be responsible for maintaining all aspects of the continuing education process and license renewal parts of the operator certification program.



Dyian Jones was named operator certification program administrative assistant. She comes to the certification program

from the Construction Permits Section. Her time will be shared between the certification and continuing education programs.

Natalie Green

started in the pre-treatment program of the Operator Assistance and Pretreatment Section Feb. 5. She comes to OAPS from IDEM's Office of Land Quality where she worked in the land application program. ♣



Results of November 2000 Certification Exams

The Certification Examination was administered on November 16, 2000 at Indianapolis, Elkhart and Sellersburg. A total of 284 people took the exams. The overall passing rate for municipal and industrial combined was 45 percent. The examinations were graded electronically. In addition, all examinations with a score of 67, 68 or 69 were graded by hand.

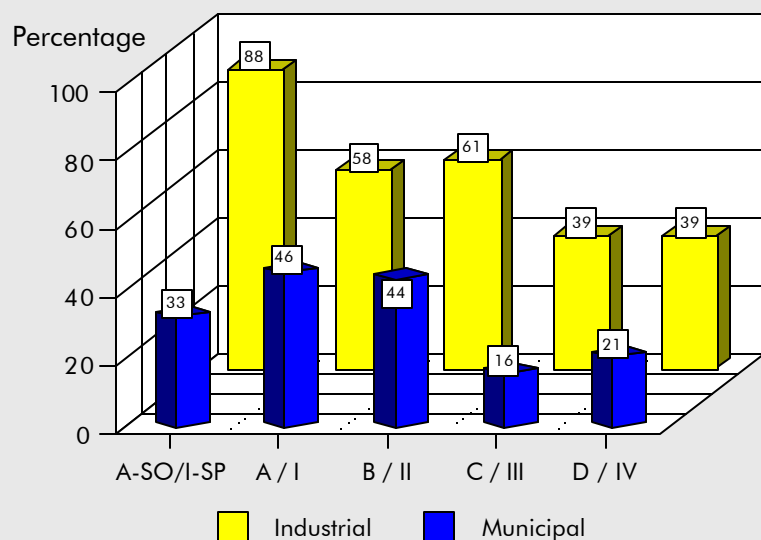
The passing rate for each category of questions, by exam class, is available upon request. This information should be especially useful to training providers. If you are a training

provider who offers exam preparation courses, please notify the certification officer of your course information. We receive many requests for exam prep course information from exam applicants, especially when courses are cancelled. We would like to prepare a short list of these specific courses for exam applicants, on request.

If you have comments or questions, contact Christine Hightower at (800) 451-6027, press 0 and ask for ext. 2-8666, or (317) 232-8666. Or, send an e-mail to chightow@dem.state.in.us.



May 2000 Exam Final Passing Rates



Municipal

Class	Passing Rate	Number of Examinees
I-SP	33%	3
I	46%	59
II	44%	54
III	16%	31
IV	21%	24

Industrial

Class	Passing Rate	Number of Examinees
A-SO	88%	14
A	58%	14
B	61%	23
C	39%	7
D	39%	8

Overall Passing Rate: 45%

Total Examinees: 284

Municipal Top Scorers

Class I-SP

Jerry D. Jackson, Michigan City

Class I

Robert G. Lugar, McCordsville

Class II

Christopher C. Bauer, Evansville

Class III

Anthony R. Fox, Crown Point

Class IV

David J. Hackworth, Greenwood

Industrial Top Scorers

Class A-SO

Tony L. Harvey, Indianapolis

Class A

David E. Murphy, Indianapolis

Class B

Casey R. Furlong, Mishawaka

Class C

Thomas M. Crist, Granger

Class D

Matthew T. Hosier, Fort Wayne

Total Numbers of Indiana Operators by Class

Municipal	Licensed & Renewable
I-SP	27
I	812
II	687
III	306
IV	431
Subtotal:	2,263

Industrial	Licensed & Renewable
A-SO	158
A	477
B	436
C	289
D	404
Subtotal:	1,764
Total:	4,027

The above totals include operators whose licenses have expired, but are still within the three year grace period during which their license may be renewed without re-testing.

Continued from page 2...

Indiana Facilities Dominate

Award Categories

When the O&M Awards Program began in 1986, U.S. EPA offered national first place awards to small, medium and large facilities in both secondary and advanced treatment plant categories. In 1988, U.S. EPA added small and large non-discharging categories and second place awards. In 1990, U.S. EPA added the Most Improved Plant category.

Other Award Programs

This program is one of five awards programs currently managed under the National Wastewater Management Excellence Awards Program, which includes the O&M, Beneficial Biosolids Use, Pretreatment Management, Storm Water Management and Combined Sewer Overflow Management Awards Programs.

Selection Process used by IDEM

Municipal facilities with three or fewer effluent exceedences and/or violations in the previous twelve months are considered for candidacy. Facilities must have been operating at their current capacity for at least two years prior to the year of the award and have had no major improvements in that period. Immediate past regional and national winners are excluded as a general rule.

IDEM's wastewater inspectors, the Operator Assistance and Pretreatment Section, and the Enforcement and Compliance Sections screen this list of potential candidates. A committee reviews the new short list and final selections are made. The selectees must complete a "short form" application created and supplied by U.S. EPA Region V. IDEM's coordinator notifies the selectees, discusses the program, supplies the necessary forms and assists the facility with the completion of the necessary paperwork. The completed application is

then forwarded to U.S. EPA Region V for consideration.

Award recipients are announced about three to four months after submission. First place regional winners are eligible to submit a "long form" and compete in the national contest. Region V Awards Coordinator David Stoltenberg arranges a date to present both first and second place regional awards. National winners are honored each fall at the Water Environment Federation's annual conference.

For More Information

Barbara McDowell
O&M Awards state coordinator
IDEM - Office of Water Quality
(800) 451-6027, press 0 and ask for ext. 3-6464, or call (317) 233-6464 ♣

Do you Know Where Your Ammonia Comparability Data Is?

Guidelines establishing test procedures for the analysis of pollutants found at 40CFR136 contain a footnote (6) regarding the **manual distillation procedure for ammonia as N** (*Methods for Chemical Analysis of Water and Wastes* – 350.2 or *Standard Methods for the Examination of Water and Wastewater 18th Ed.*—4500-NH₃B). The footnote reads:

"Manual distillation is not required if comparability data on representative effluent samples are on company file to show that this preliminary distillation step is not necessary; however, manual distillation will be required to resolve any controversies".

Although the footnote contains no reference as to when this comparability data should be updated, IDEM would urge facilities over 4.0 MGD to redo the comparability data biennially or, as warranted, if a major change in the waste streams occurs. (If a specific quality assurance program at a facility sets this update at a more frequent

interval, that program would override this recommendation.)

For more information, call Barbara McDowell at (800) 451-6027, press 0 and ask for ext. 3-6464, or call (317) 233-6464. ♣

Organic Overloads and the "Law of the Minimum"

Early last June, a POTW plant was operating with a mixed liquor D.O. of 3-4 mg/L and effluent solids of <5 mg/L. Over the first weekend, it started receiving high-BOD slugs, and the plant had no holding basin to divert slugs. Although all aerators were operating at full capacity by Thursday (Day 6), ML D.O. had dropped to 0.02 mg/L, and effluent TSS increased to 64 mg/L. The operator then responded by aggressively *increasing* solids wasting. After effluent TSS peaked at 292 mg/L on Day 9 (ML D.O. still 0.02 mg/L), the plant started recovering. By Day 16, the effluent was back in compliance although MLSS had been wasted from 2220 mg/L down to 1050 mg/L.

This case is a good application of the "law of the minimum," i.e. the rate of a chemical or biological process is limited by the one factor that is in least supply. For example, activated sludge has three (3) potential limiting factors: BOD (the usual limiting factor), biological activity (a function of biomass and temperature) and oxygen.

In this case, the BOD overload made oxygen the limiting factor, threatening to cause septicity. Since the operator could not remove the BOD, he reduced oxygen demand by reducing the MLSS thereby shifting the limiting factor to biological activity. This reduced the oxygen demand enough for the aeration system to restore the D.O. This could be an effective countermeasure to organic overloads in mixed liquor at other POTWs *provided* that room is available for wasting. ♣

New Test Methods Approved for Use in E. Coli Detection

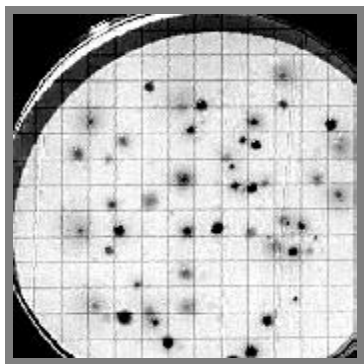


Photo courtesy of Doug Wengert,
Micrology Labs

Escherichia coli (*E. coli*)

The Indiana Department of Environmental Management currently requires all National Pollutant Discharge Elimination System permittees that have a design flow greater than 1.0 MGD, or that have ultraviolet disinfection, or that discharge into a sinkhole to detect and enumerate *Escherichia coli* (*E. coli*) bacteria during the disinfection season.

Because *E. coli* is a parameter not listed at 40 CFR 136.3 for wastewater compliance monitoring, IDEM has the authority to specify the method(s) to be used. Therefore, IDEM is announcing that two additional methods for *E. coli* detection and enumeration are approved for use in Indiana.

For *E. coli* detection and enumeration for the 2001 disinfection season beginning April 1, 2001, permittees may:

- Continue with Method 1103.1 using the original m-TEC agar;
- Continue with Method 1103.1, but use the modified m-TEC agar;
- Use the Coliscan MF™ Method; or
- Use SM Method 9223 B using Colilert™.

If your facility plans to make a change and use a method other than 1103.1, please notify Barbara

McDowell as to your intentions, immediately. There is additional information that must be determined.

Detailed letters fully explaining the change in policy were sent to all facilities that are required to monitor and report *E. coli*. If your facility has not received this information, please call Barbara McDowell at (800) 451-6027, press 0 and ask for extension 3-6464, or call (317) 233-6464. 📞

REMINDER

Applications for the May 10, 2001 operator certification exam must be **postmarked by Monday, March 26, 2001**. Late applications will not be considered for this exam.